



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D205-634-041
Job Sheet 177918



Part No: D205-634-041

Job Qty: 1 ea

Part Name: Replacement Skidtube with Standard Wearplates Fits LH or RH



Part Weight: 0 lbs

Status: Scheduled

Priority: High

Job Created: 5/23/18

Job Tracking No:

Due Date: 6/6/18

Created By: Jesse White

Type: SOLD

Description:

Note: DWG D2580 REV H SHEETS 1,2,3,8 IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD IPP Rev. O 06.02.28 Added paperwork EC IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM IPP Rev:Q 10.12.01 as per chg003 DD ver:EC IPP REV:R 12.01.23 AS PER ECN11-684 VERF:EC IPP REV:S 17.12.08 REMOVE GASKET AS PER INTUITIVE INFO DD VERF:JFS

Ship Via:

Bill of Materials



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 813 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S077509



Part: D205-634-041

Job No: 177918

Serial No/Batch: S077509

Revision: H

Inspector:

Exp Date: 06/04/2018

Instructions:

Date: 06/04/18

S077509x1

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	6/6/18	6/6/18	0.00	0.00	Start Up Skid tubes		M66
110	CNC Bend Skid tubes	1 pcs	6/6/18	6/6/18	0.00	0.65	CNC Bend Skid tube		M66
120	Skid tubes	1 pcs	6/6/18	6/6/18	0.00	2.89	Skid tubes-2		L14
130	QC	1 pcs	6/6/18	6/6/18	0.00	0.00	QC5		HE
140	Skid tubes	1 pcs	6/6/18	6/6/18	0.00	2.89	Skid tubes-2		HE DAS J.Y.
150	QC	1 pcs	6/6/18	6/6/18	0.00	0.00	QC10		38 DAS
160	QC	1 pcs	6/6/18	6/6/18	0.00	0.00	QC5		9-88 38
170	HandFinish	1 pcs	6/6/18	6/6/18	0.00	1.31	HandFinish1		SA 18-06-06
180	Powdercoat	1 pcs	6/6/18	6/6/18	0.00	0.34	Powdercoat1		BR 18-6-6
190	QC	1 pcs	6/6/18	6/6/18	0.00	0.00	QC3		DEF 18-06-06
200	HandFinish	1 pcs	6/6/18	6/6/18	0.00	1.31	HandFinish4		DEF 18-06-08
210	QC	1 pcs	6/6/18	6/6/18	0.00	0.00	QC5		21
220	Packaging	1 pcs	6/6/18	6/6/18	0.00	0.00	Packaging3-1		9-88
225	DC	1 pcs	6/6/18	6/6/18	0.00	0.00	DC		DAS JUN 08 2018
230	QC21-FG	1 Ea	6/6/18	6/6/18	0.00	0.00	QC21		21 JUN 08 2018

Part Op 110 - 1-Bend as per program D2580.C on CNC Bender and Folio 16 2-Cut tubes as per Dwg. D2580 3- scribe batch# in Descriptions: aft end of tube

120 - 1- Deburr ends and remove bending marks 2- Prepare tube for welding as per QSI 004

140 - 1-Weld step D2576 as per Dwg. D2580 and QSI 004 2-Grind welds on step as per Dwg D2580 3- Insert D4202-1 spacer, swage as per QSI002 and trim/ grind flush per QSI002 and dwg. Hold x-bolt with DT9701 Use tube expander 1/2 x17G to start expansion and finish with 1/2 x 18G to achieve dwg dimension. 4-Drill holes for wearplates using DT 8217 & DT8937, 7.40" from most fwd saddle holes (ref only) Open holes to 19/64", adjust stopper not to hit web. Deburr 5-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Deburr 6-Drill pilot holes for Tow ring using DT8091, open to .640" and Deburr

170 - Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd cap out of solution.

180 - START TIME: 1:00 OVEN TEMPERATURE: 300° FINISH TIME: 1:30

200 - 1-Install inserts & wearplates as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates A/R Sikaflex-291 113877 Sikaflex expire date: 18/12 2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580 3-Inspect for foreign object per QSI 024 4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive A/R Sikaflex-291 113877 Sikaflex expire date: 18/12

5-Wing Walk as per Dwg D2580 and QSI 005 4.4 Batch: 1138851

210 - Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

220 - Identify and pack for shipping as per PPPD205-634-041 Location: PPP Rev:

225 - Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG006

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2580-1	205 Bent Tube	1 Ea (1 ea)	90-Start up Operation	50 76456
D2576-3	Step (Machining Detail)	1 Ea (1 ea)	140-Skid tubes	50 69014
D4202-1	Spacer	20 Ea (20 ea)	140-Skid tubes	50 44571
ALS7-1032-130	Rivnut	50 Ea (50 ea)	200-HandFinish	50 45668
AN3-5A	Bolt	2 Ea (2 ea)	200-HandFinish	50 41106-1
AN3C4A	Bolt	50 Ea (50 ea)	200-HandFinish	2x 50 41114 / 48 x 50 68642
D2594-1	Plug	16 Ea (16 ea)	200-HandFinish	50 59021
D2594-3	O-Ring	16 Ea (16 ea)	200-HandFinish	50 49975
D2855	Cap	1 Ea (1 ea)	200-HandFinish	51 51613
D3564-11	Wearplate Aft	1 Ea (1 ea)	200-HandFinish	50 45366
D3564-13	Wearpad Fwd	1 Ea (1 ea)	200-HandFinish	50 45900
D3564-5	Wearplate Center	1 Ea (1 ea)	200-HandFinish	50 77530
D3564-9	Wearplate Fwd	1 Ea (1 ea)	200-HandFinish	50 45782
NAS1149C0332R	Washer	50 Ea (50 ea)	200-HandFinish	50 56493
NAS1149D0332J	Washer	2 Ea (2 ea)	200-HandFinish	50 20606-1

003744

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D2580-1	1	0	0
140-Skiddtubes	D2576-3	1	43	0
	D4202-1	20	413	0
200-HandFinish	ALS7-1032-130	50	2,049	0
	AN3-5A	2	314	0
	AN3C4A	50	2,319	0
	D2594-1	16	504	0
	D2594-3	16	773	0
	D2855	1	95	0
	D3564-11	1	20	0
	D3564-13	1	17	0
	D3564-5	1	14	0
	D3564-9	1	20	0
	NAS1149C0332R	50	7,148	0
	NAS1149D0332J	2	2,291	0

Part Specifications

Specifications could not be found.

Plex 5/23/18 10:12 AM dart.white.jesse

ITEM	QTY -041	QTY -045	QTY -047	QTY -048	PART NUMBER	DESCRIPTION
1	X				D2580-041	SKIDTUBE ASSEMBLY
2		X			D2580-045	SKIDTUBE ASSEMBLY
3			X		D2580-047	SKIDTUBE ASSEMBLY
4				X	D2580-048	SKIDTUBE ASSEMBLY
20	1	1	1	1	D2500-1-190	EXTRUSION
21			16	16	D2570	BUSHING
22	1	1	1	1	D2576-3	STEP
23		4			D2579	SPACER
24	16	16	8	8	D2594-1	PLUG
25	16	16	8	8	D2594-3	O-RING
26	1	1	1	1	D2596	205 WEB
27	1	1	1	1	D2555	AFT CAP
28	1	1			D3554-5	WEARSHOE
29	1	1			D3554-9	WEARSHOE
30	1	1			D3554-11	WEARSHOE
31	1	1			D3554-13	WEARSHOE
32	20	20	24	24	D4202-1	SPACER
33			1		D4405-041	WEARPLATE ASSEMBLY
34			1		D4405-043	WEARPLATE ASSEMBLY
35				1	D5051-1	FWD WEARPLATE
36				1	D5051-3	AFT WEARPLATE
50	50	50			ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
51	50	50			AN3C4A	BOLT
52	2	2	2	2	AN3-5A	BOLT
53			8	8	AN4-45A	BOLT
54	50	50			NAS1149C0332R	WASHER (AN980C10L)
55	2	2	2	2	NAS1149D0332J	WASHER (AN980JD10L)
56			8	8	MS21042-4	NUT (OR MS21042L4)

GENERAL NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT (-041/-047/-049) GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
POWDER COAT (-045) GREEN SANDTEX (REF 4.3.5.8) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4.
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D2580-041 = 33.7 lbs
D2580-045 = 33.7 lbs
D2580-047 = 45.1 lbs
D2580-048 = 32.0 lbs
- 8) WELDING PER DART QSI 004.
- 9) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 10) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 11) USE DART DRILL TEMPLATE DT8217 & DT8837 ONLY FOR D2580-041/-045 TO LOCATE AND DRILL 20.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTIONS B-B AND F-F (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND NAS1149C0332R WASHERS WITH SIKAFLEX-241-291.
- 12) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES FOR D2580-041/-045 AND 8 PLACES FOR D2580-047/-049)
- 13) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2555 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

H	SHEET : PL DELETE D3555-1/-5/-13 GASKETS, WEIGHTS UPDATED ACCORDINGLY. SHEETS 2 & 4 PICTORIAL UPDATE FOR REMOVAL OF GASKETS	SAD	17.06.09
G	ADDED -048, -047 WEIGHT UPDATED PER DSI 9598	AJS	14.04.09
F	INCORPORATE DEO D2580-E-1 PER PAR12-218	DC	13.06.20
E	ADD D2580-047 (ZN C4-7) AND D2580-7 (ZN B3-8); INCLUDED DEO D2580-D-1; REFORMATTED DRAWING TO CURRENT STANDARDS; DT8217 & DT8837 WAS TD2577-205 (ZN C4-1)	RF	11.06.21
D	CHANGE TO 85 WEARPLATES AND GASKETS, INCLUDE DEO 8124/ 9183	PH	07.04.06
C	REDRAWN, INCLUDED DEO 9094/ 9087	CP	06.06.28
B	AS MANUFACTURED	DS	06.12.02
A	NEW ISSUE	DS	06.08.16
REV.	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	SAD		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	17.06.09		

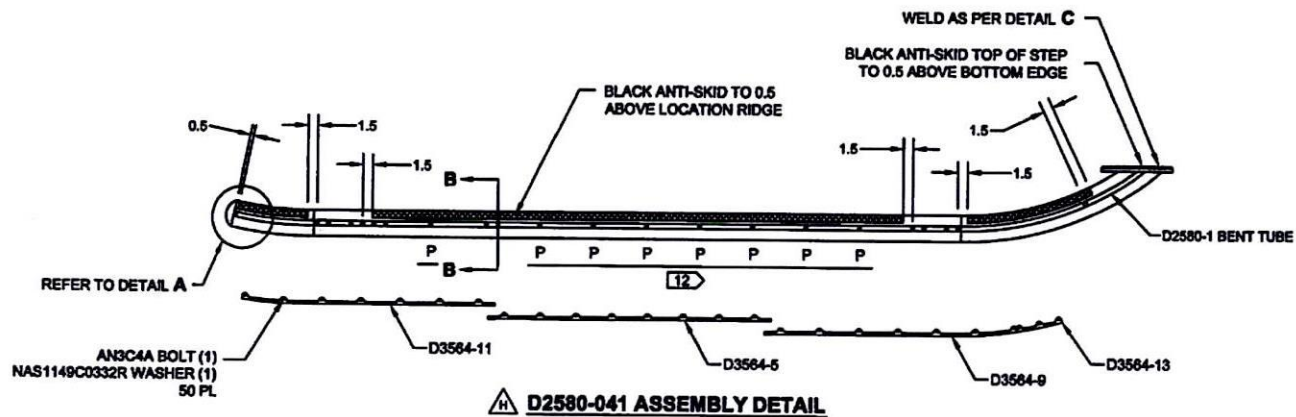
DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D2580
TITLE 205 SKIDTUBE ASSEMBLY
REV. H
SHEET 1 OF 9
SCALE NTS

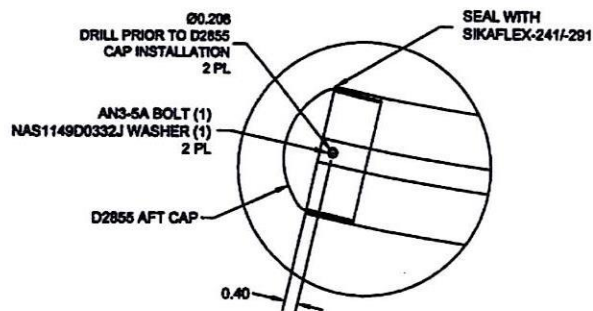
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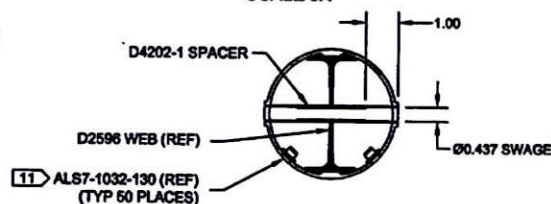
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BENT-SUR



DETAIL A
SCALE 5X

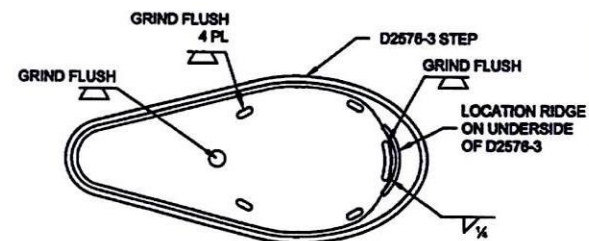


SECTION B-B
SCALE 5X



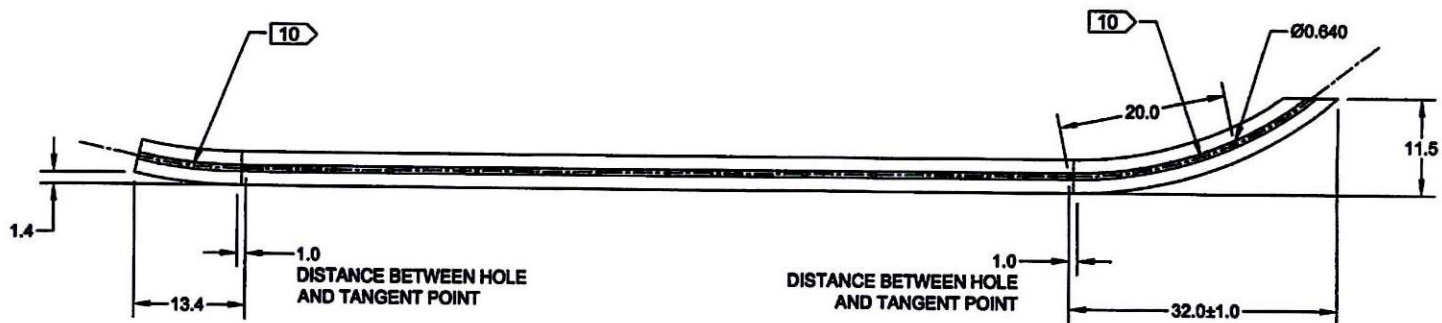
AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. INSERT D4202-1 SPACER (20 PLACES)
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002

DETAIL C
SCALE 5X



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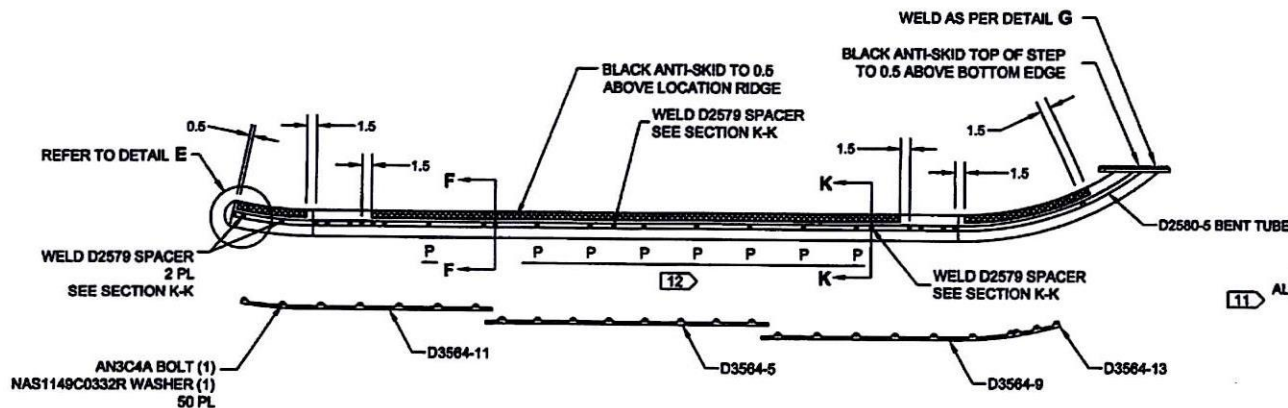
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MFG. APPR.	<i>[Signature]</i>	D2580	SHEET 2 OF 8
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	205 SKIDTUBE ASSEMBLY	NTS
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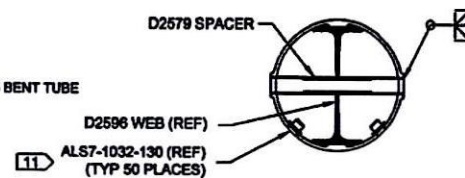
D2580-1 BENT TUBE
(MAKE FROM D2580-101 TUBE)

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DRAWN	SAD		
CHECKED	<i>[Signature]</i>	DRAWING NO. D2580	REV. H SHEET 3 OF 9
MFG. APPR.	<i>[Signature]</i>	TITLE	SCALE
APPROVED	<i>[Signature]</i>	205 SKIDTUBE ASSEMBLY	NTS
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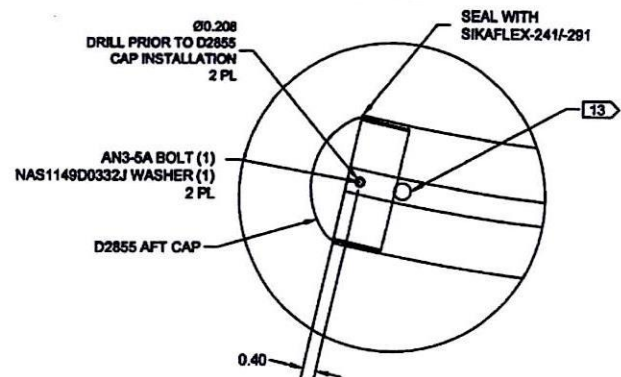


SECTION K-K
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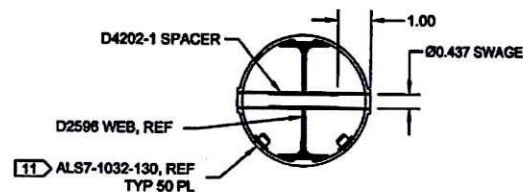


AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (4 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. DO NOT CBORE

DETAIL E
SCALE 5X

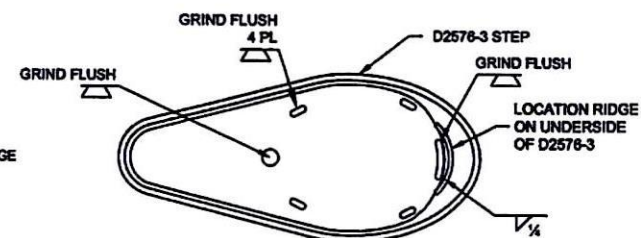


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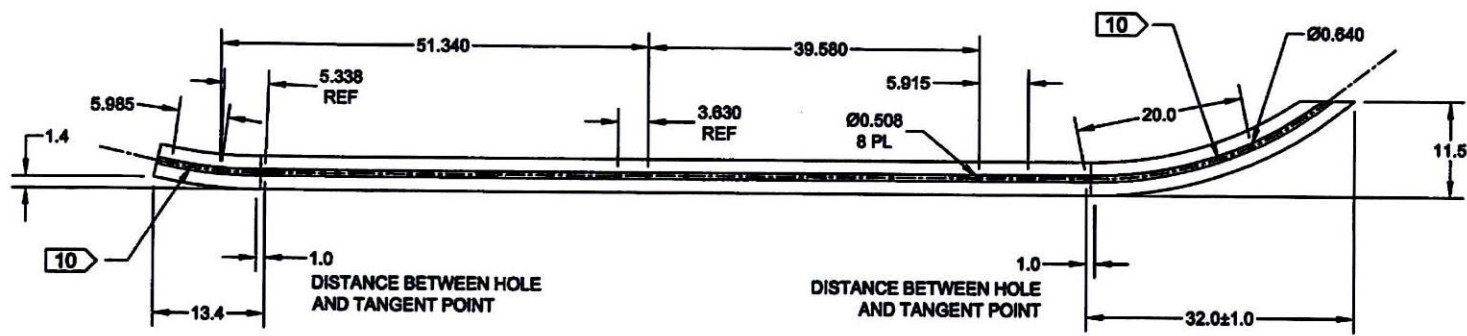
AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. INSERT D4202-1 SPACER (20 PLACES)
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
3. TRIM/GRIND FLUSH PER QSI 002

DETAIL G
SCALE 5X



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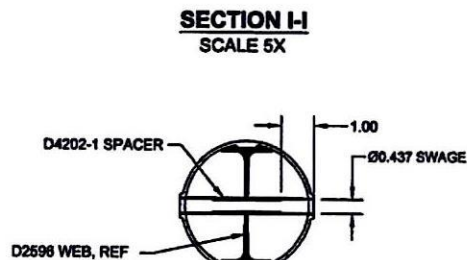
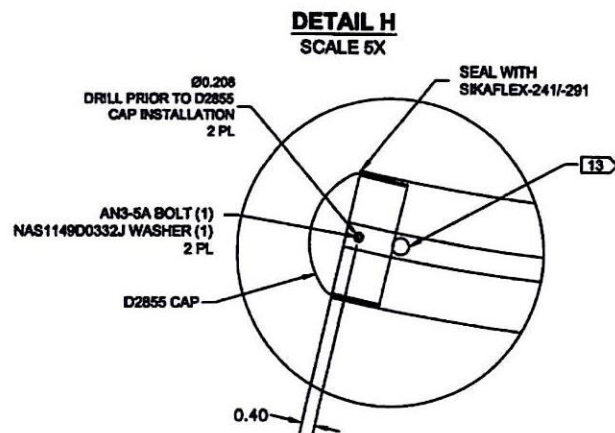
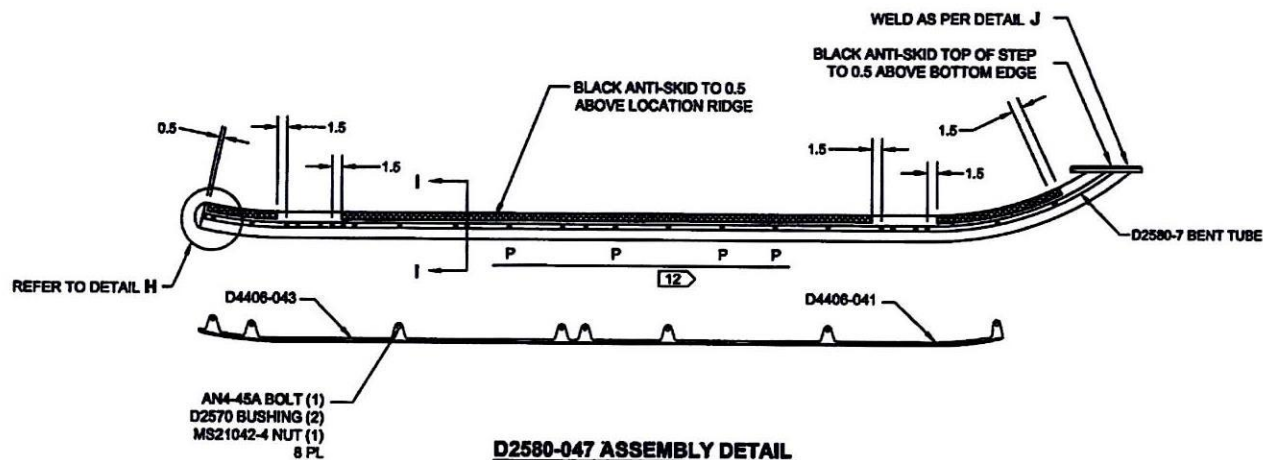
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D2580-5 BENT TUBE
(MAKE FROM D2580-101 TUBE)

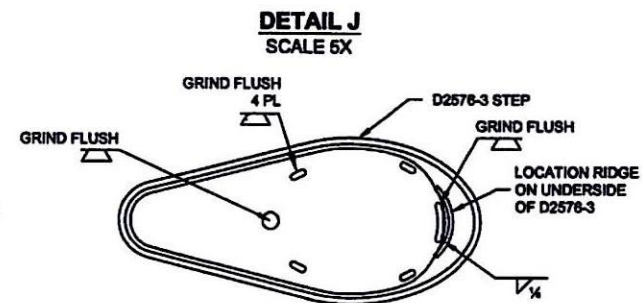
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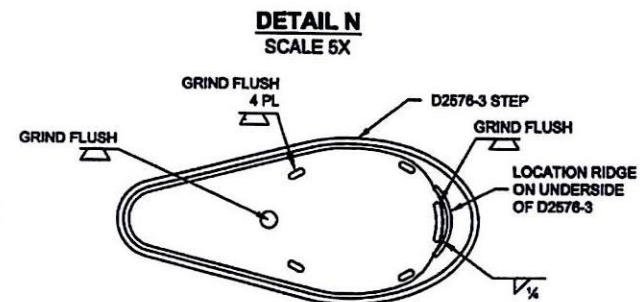
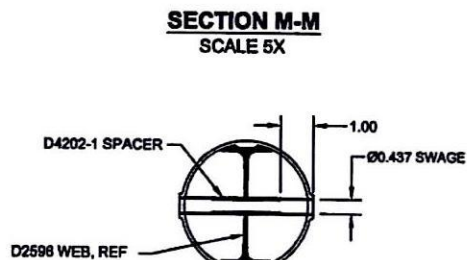
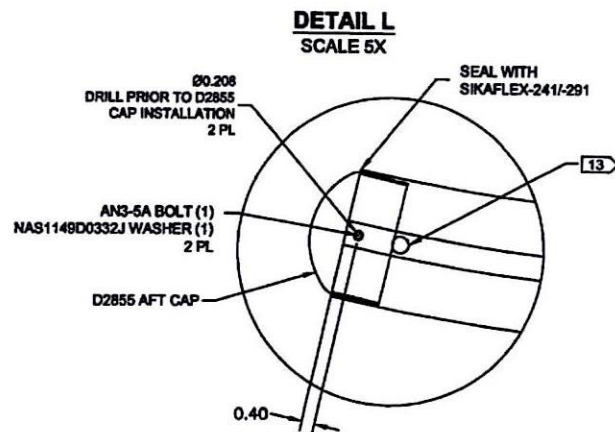
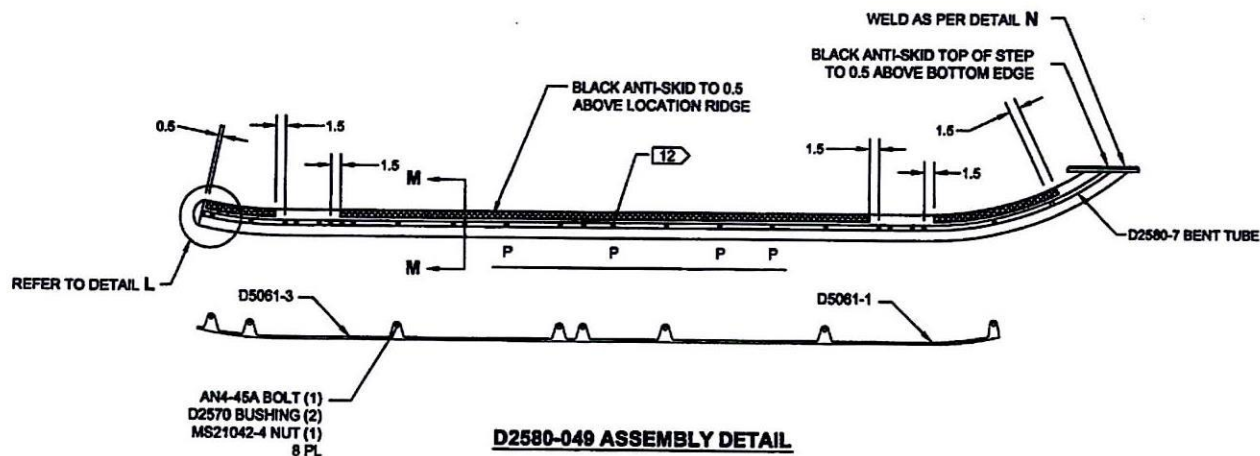
1. INSERT D4202-1 SPACER (24 PLACES)
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
3. TRIM/GRIND FLUSH PER QSI 002



RELEASED

2017 JUL 05

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APPROVED	<i>[Signature]</i>	TITLE	SCALE
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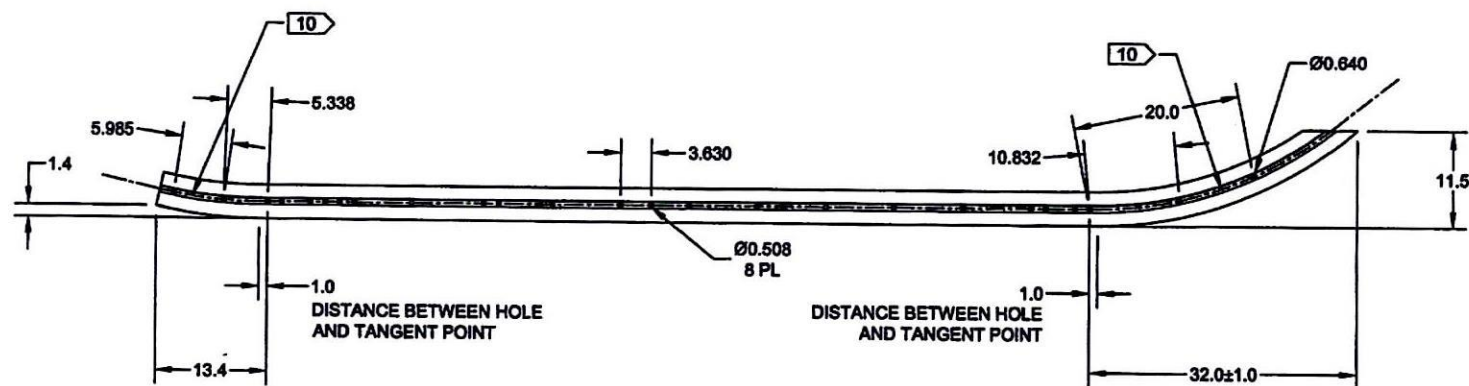


AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. INSERT D4202-1 SPACER (24 PLACES)
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
3. TRIM/GRIND FLUSH PER QSI 002

RELEASED

2017 JUL 05 *qp*

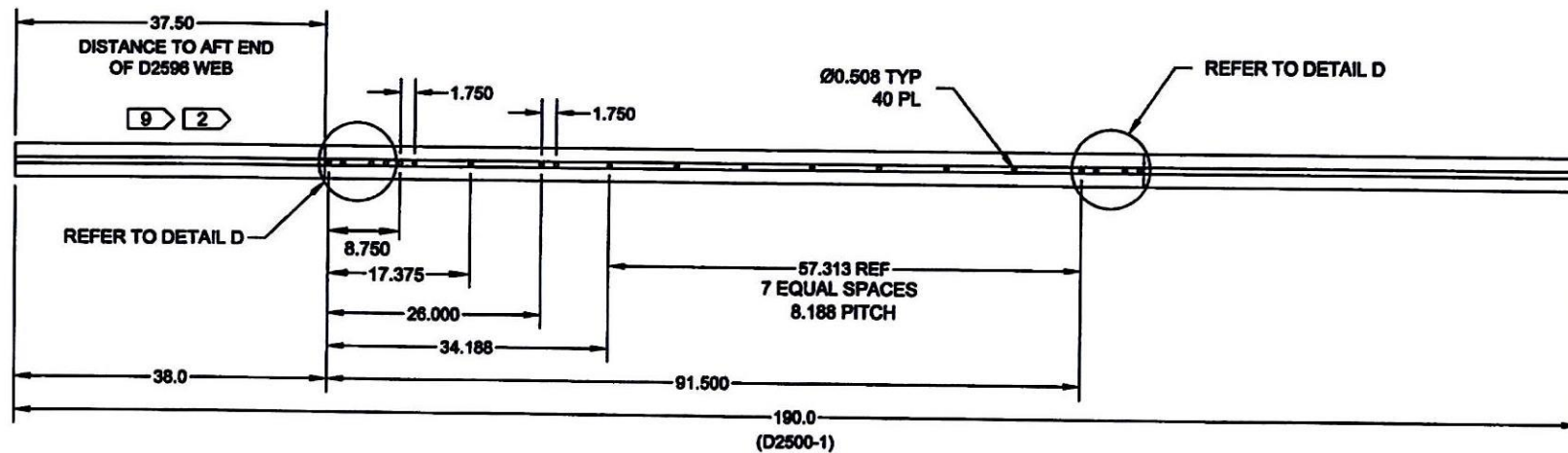
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MFG. APPR.	<i>[Signature]</i>	D2580	SHEET 7 OF 9
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	205 SKIDTUBE ASSEMBLY	NTS
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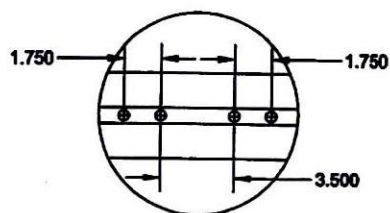
D2580-7 BENT TUBE
(MAKE FROM D2580-101 TUBE)

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2017 JUL 05 *q*

DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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MFG. APPR.	<i>[Signature]</i>	TITLE 205 SKIDTUBE ASSEMBLY	SCALE NTS
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D2580-101 TUBE



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